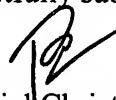


Remarks

The Applicant has amended the Specification and the Abstract to place them into better form for examination on the merits and allowance. The Applicants have cancelled Claims 1 – 8 and replaced them with new Claims 9 – 19. They are in better form for examination on the merits and allowance.

Passage to the appropriate art unit for examination on the merits is respectfully requested.

Respectfully submitted,



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SUBSTITUTE SPECIFICATION (Marked-Up)**A METHOD OF AND SYSTEM FOR ACCESSING AN INTERACTIVE TELEVISION
SESSION BY MEANS OF A MINI-MESSAGE****Related Application**

[0001] This is a §371 of International Application No. PCT/FR2004/050675, with an international filing date of December 10, 2004 (WO 2005/062613 A1, published July 7, 2005), which is based on French Patent Application No. 03/51107, filed December 18, 2003.

Technical Field

[0002] ~~The invention~~ This disclosure relates to the field of interactive television.

[0003] ~~The invention relates more specifically to a method that aims to allow access to an interactive television service by previously entering a code sent by mini message, which can be, for example, in SMS format.~~

Background

[0004] There are known solutions for accessing interactive pay television services in the previous state of the art. A classic solution consists of making the payment using a bank card. Other solutions are also known, such as payment by means of a surcharged modem connection.

[0005] ~~The invention intends to solve the disadvantages of the previous state of the art by providing a method that enables access to an interactive pay television service by means of a mini message.~~

Summary

[0006] ~~For this purpose, the invention relates, in its most general sense,~~This disclosure is directed to a method of accessing an interactive television service ~~by means of~~with a code and a mini-message, ~~characterised in that it comprises the following steps~~comprising:

[[-]] ~~randomly generation of~~generating a code C1 by an interactive television application implemented on an interactive television set;

[[-]] ~~sending of a~~ mini-message containing the code C1 to a processing server ~~by means of~~with a mobile telecommunications device;

[[-]] ~~calculation of the~~calculating a code $C2 = F(C1)$ ~~by~~with the processing server;

[[-]] ~~resending of the code C2~~ ~~by~~with the processing server and ~~receipt of~~receiving the code C2 on the mobile telecommunications device;

[[-]] ~~entry of~~entering the code C2 by the user in the interactive television application;

[[-]] ~~calculation by~~calculating the interactive application ~~of~~ $C1' = F^{-1}(C2)$ [[,]];

checking that $C1' = C1$ [[,]]; and

enabling the user to access ~~said~~the service[[;]].

wherein F is a predefined function, and F^{-1} is the inverse function of F.

[0007] ~~According to a first variant, said~~The mini-message is~~may be~~ in SMS format[[.]].

[0008] ~~According to a second variant, said mini-message is in~~MMS format[[.]] or

[0009] ~~According to a third variant, said mini-message is in the form of an e-mail.~~

[00010] ~~According to an embodiment of the invention, said~~The mini-message is~~may be~~ transmitted across a mobile telecommunications network[[.]] or

[0010] ~~According to another embodiment of the invention, said mini-message is transmitted~~ across the internet and/or a local wireless network.

[0011] Preferably, ~~said~~the service requires payment and ~~said~~the mini-message is surcharged.

[0012] ~~The invention further relates to a~~A system for implementing the method, ~~comprising~~
is also disclosed and comprises at least a mobile telecommunications device, an interactive television set, a mobile telecommunications network or a local wireless network, a digital television broadcasting network and a processing server.

Brief Description of the Drawing

[0013] The ~~invention~~disclosure will be understood better from reading the description, provided below for purely explanatory purposes, of ~~an embodiment of the invention~~,selected aspects in reference to the appended figure[[s]], in which:

- ~~figure~~Fig. 1 shows ~~an~~one selected embodiment of the method according to the invention.

Detailed Description

[0014] In the ~~embodiment of the invention shown in our~~selected example, a user has a television set connected to an interactive television decoder and a mobile telephone terminal that has capacity for sending and receiving SMS, MMS or e-mail messages. This terminal can be compatible with GSM, CDMA, GPRS, UMTS or any other digital telecommunications standard that supports sending and receiving mini-messages. It is also possible to use a PDA terminal (personal digital assistant) connected to a local wireless network (~~Wi-Fi, etc. or the like~~). It is understood that this example is non-exhaustive and that it is up to the person skilled in the ~~trade~~art to implement variations that adapt to each specific case.

[0015] The user ~~is~~may ~~watching~~ free-access interactive television programmes. At a given instant T, he/she decides to access an interactive pay television service. The interactive television application ~~implementing the method according to the invention~~ generates a code C at random and asks the user to enter this code C on his/her mobile terminal.

[0016] In ~~our~~the example, the code is taken from the natural numbers under $2^8 = 256$ and the function used is $Y = F(X) = 1/x^2$. This means that $X = F^{-1}(Y) = 1/\sqrt{Y}$.

[0017] The user then enters the code $C = N_1$ on his/her terminal and sends it in the form of an SMS message to a predefined number. In ~~our~~the example, the SMS is surcharged, in other words, the mobile telecommunications operator bills the message at a higher price than normal SMS messages and a part of this extra charge is paid back to the interactive pay television service provider.

[0018] Next, the SMS is received by a processing server, which calculates $R = F(N_1) = 1/(N_1)^2$. The server sends the result R back to the user's terminal over a mobile telecommunications network.

[0019] The next step ~~consists of~~comprises the user entering R in a window of the interactive television application using his/her remote control. The interactive application calculates $F^{-1}(R) = 1/\sqrt{R}$ and checks that this value is the same, by approximation of calculations on real numbers by nearby computers, as N_1 . If the verification is successful, the interactive television application ~~authorises~~authorizes the user to access the paying service.

[0020] The ~~invention~~above method and apparatus/system is described ~~above~~merely as ~~an~~ selected example. It is understood that ~~people~~those skilled in the ~~trade~~art will be able to implement different variants ~~of the invention~~ without therefore departing from the ~~context of the~~ patent spirit and scope of the appended claims.